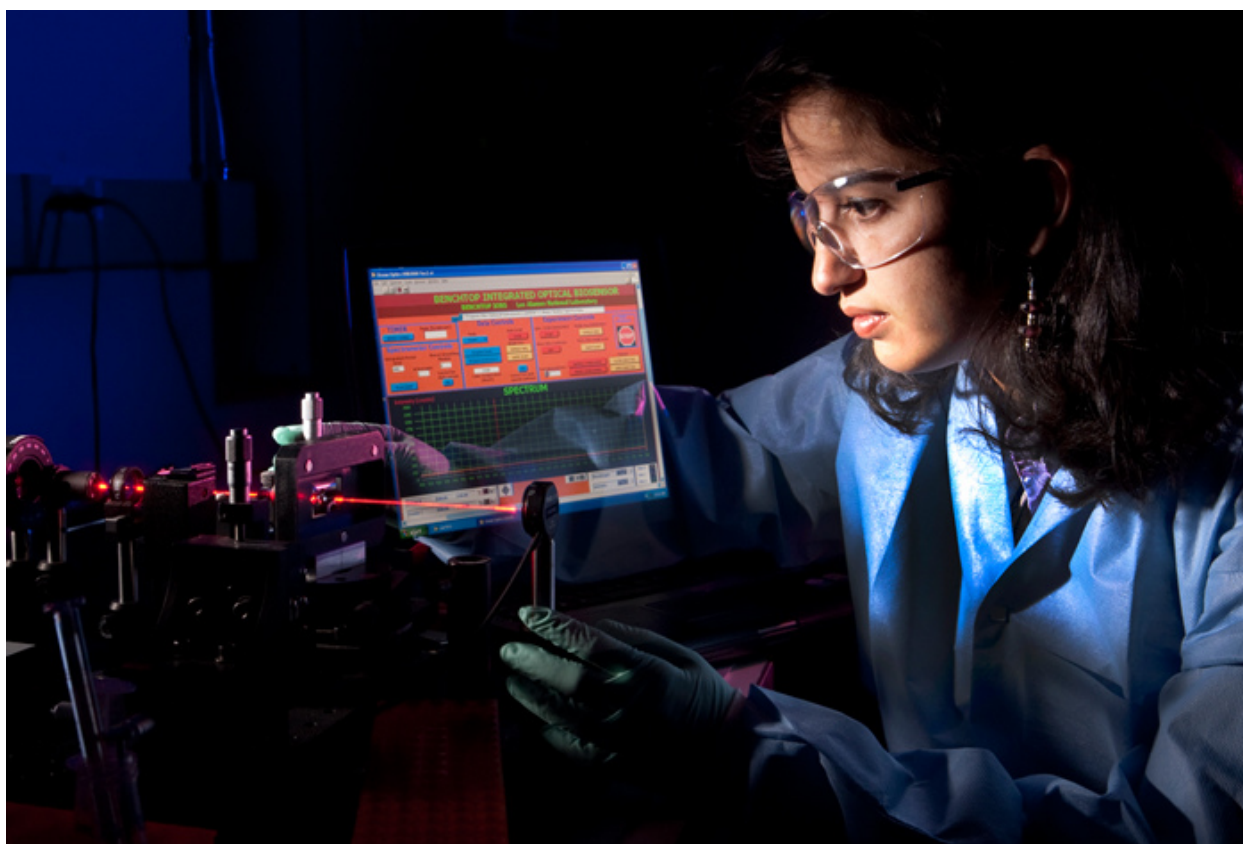




## **New Mexico small businesses helped by Los Alamos National Laboratory scientists**

December 11, 2012



### **New Mexico Small Business Assistance Program provides technical expertise, assistance**

LOS ALAMOS, NEW MEXICO, December 11, 2012—Los Alamos National Laboratory scientists Harshini Mukundan of the Physical Chemistry and Applied Spectroscopy group and Mark E. Smith of the Chemical Diagnostics and Engineering group received Principal Investigator Excellence (PIE) Awards from the New Mexico Small Business Assistance program (NMSBA) for assisting several New Mexico small businesses.

Los Alamos National Security, LLC, the NMSBA and Northern New Mexico Connect sponsored the recognition event.

Mukundan was recognized for the assistance she provided to small businesses on two separate projects; bovine tuberculosis detection and better diagnostics for traumatic brain injury.

Her work bovine tuberculosis detection, which has grown to include ranchers and veterinarians throughout the state, began in 2009. Mukundan and her team use clinical studies to evaluate the use of biomarkers and antibodies to develop a reliable diagnostic assay for bovine TB. "The assay will not only be able to detect active infection, but also discriminate it from non-specific infection by non-pathogenic bacteria," said Mukundan.

Mukundan also is helping a Los Alamos medical technology company explore better diagnostics for traumatic brain injury. With the increased incidence of traumatic brain injury among soldiers in combat the condition has become one of significant concern for the U.S. Department of Defense.

Smith was recognized for his expertise in assisting an Albuquerque company that patented a process for staining wood through natural mineral reaction rather than binders, petroleum-based products or chemical solvents. Smith conducted experiments to determine the chemical make up of minerals in solution. Smith also assessed the surface properties of wood substrate after the company's coloring solutions were applied. This included understanding the structures created and characterizing the chemical interactions. All of Smith's data, observations and findings were compiled in a final report and provided to the company.

"The NMSBA program provides a tremendous means to accelerate the application of innovative ideas that are generated by the businesses of New Mexico," said Smith. "I have always found that the projects provide a two-way benefit of knowledge, especially the unexpected barriers that require us to understand the nuances of the technologies."

At no cost to them, small businesses with technical challenges can seek assistance from Laboratory scientists or engineers for projects that require testing, design consultation, or access to special equipment or facilities. Assistance takes the form of staff hours valued at up to \$20,000 per calendar year for businesses located in rural New Mexico counties, and \$10,000 for businesses located in Bernalillo County. The total amount of assistance is capped at \$2.4 million annually for each of New Mexico's two national laboratories. Los Alamos joined the NMSBA program in 2007.

In 2011, NMSBA assisted 342 small businesses across the state.

Information about the New Mexico Small Business Assistance program is available at <http://www.nmsbaprogram.org/>.

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